WHAT IS CLAIMED IS:

1. A method for determining the position of an element driven by the drive shaft of a commutated direct current (DC) motor, the method comprising:

detecting current ripples contained in an armature current signal of the motor as the motor drives the drive shaft;

counting the detected current ripples;

performing a frequency spectral analysis of the armature current signal in order to determine frequency components of the armature current signal;

analyzing the frequency components identified in the frequency spectral analysis of the armature current signal in order to determine which of the frequency components of the armature current signal is indicative of the frequency of the current ripples contained in the armature current signal;

monitoring the current ripple frequency for changes over time while the motor drives the drive shaft;

modifying the number of counted current ripples upon a change in the current ripple frequency in a given time interval if the change in the current ripple frequency deviates from the current ripple frequency more than a threshold deviation for the given time interval; and

determining the rotational position of the drive shaft based on the modified number of counted current ripples.

2. The method of claim 1 wherein the armature current signal is an analog armature current signal, the method further comprising:

digitizing the analog armature current signal;

wherein performing a frequency spectral analysis of the armature current signal includes performing a frequency spectral analysis of the digitized armature current signal.

3. The method of claim 1 wherein:

performing the frequency spectral analysis of the armature current signal includes using a fast Fourier transform in order to determine the frequency components of the armature current signal.

4. The method of claim 1 wherein the armature current signal is an analog armature current signal, the method further comprising:

digitizing the analog armature current signal at sampling time points;

wherein each method step is performed at each sampling time point.

5. The method of claim 1 wherein:

monitoring the current ripple frequency for changes over time while the motor drives the drive shaft includes comparing the current ripple frequency at a given sampling time point with the current ripple frequency at a previously sampled time point.

6. A method for determining the position of an element driven by the drive shaft of a commutated direct current (DC) motor, the method comprising:

performing a frequency spectral analysis of an armature current signal of the motor as the motor rotatably drives the drive shaft in order to determine frequency components of the armature current signal;

analyzing the frequency components identified in the frequency spectral analysis of the armature current signal in order to determine which of the frequency components of the armature current signal is indicative of the frequency of current ripples contained in the armature current signal;

determining rotational speed of the drive shaft as a function of the current ripple frequency;

determining rotational position of the drive shaft as a function of the rotational speed of the drive shaft;

monitoring the current ripple frequency for changes over time while the motor drives the drive shaft;

modifying the determined rotational position of the drive shaft as a function of a change in the current ripple frequency.

7. The method of claim 6 wherein the armature current signal is an analog armature current signal, the method further comprising:

digitizing the analog armature current signal;

wherein performing a frequency spectral analysis of the armature current signal includes performing a frequency spectral analysis of the digitized armature current signal.

8. The method of claim 6 wherein:

performing the frequency spectral analysis of the armature current signal includes using a fast Fourier transform in order to determine the frequency components of the armature current signal.

9. The method of claim 6 wherein the armature current signal is an analog armature current signal, the method further comprising:

digitizing the analog armature current signal at sampling time points;

wherein each method step is performed at each sampling time point.

10. The method of claim 6 wherein:

monitoring the current ripple frequency for changes over time while the motor drives the drive shaft includes comparing the current ripple frequency at a given sampling time point with the current ripple frequency at a previously sampled time point.